REMARKS

In the Office Action, claims 1-26 were rejected. By the present Response, claims 1, 3 and 17 are amended, claims 25-26 are canceled and new claims 27-28 are added. Upon entry of the amendments, claims1-24 and 27-28 will remain pending in the present patent application. Reconsideration and allowance of all pending claims are requested.

Rejections Under 35 U.S.C. § 112

The Examiner rejected claims 1, 17 and 25-26 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement.

By the present response, independent claims 1 and 17 have been amended and claims 25-16 have been canceled to expedite allowance of the present application.

Amended claims 1and 17 include recitations regarding the flow director extending outwards from the wall of the component and through hot gas flow path to direct a coolant flowing from the film-cooling hole toward a hot surface of the wall, wherein the flow director does not extend over the exit site. The support for these limitations can be found at paragraphs [0027], [0033] and Fig. 3 of the application. Therefore, Applicants request the Examiner to remove this rejection.

Rejections Under 35 U.S.C. § 102

The Office Action summarizes claims 1-5, 10-20 and 23 as rejected under 35 U.S.C. §102(b) as being anticipated by Bunker et al. (U.S. Patent No. 6,234,755; hereinafter "Bunker"). Rejected claims 1and 17 are independent and will be discussed in detail below.

By the present response independent claims 1 and 17 are amended. Independent claims 1 and 17 and the claims depending there from are believed to be patentable for the reasons summarized below.

Claims 1 and 17

Amended claim 1 recites a method for forming a flow director on a component comprising a wall having at least one film-cooling hole extending through the wall and defining an exit site, said method comprising depositing at least one layer on the wall of the component, wherein said deposition includes shaping the at least one layer in accordance with a predetermined shape to form the flow director that extends outwards from the wall of the component and through hot gas flow path to direct a coolant flowing from the film-cooling hole toward a hot surface of the wall, *wherein the flow director does not extend over the exit site*.

Amended claim 17 recites a method for forming a flow director on a turbine component comprising a wall having a cold surface and a hot surface, wherein at least one film-cooling hole extends through the wall for flowing a coolant from the cold surface to the hot surface, the film-cooling hole defining an exit site in the hot surface of the wall. The method comprises depositing at least one layer on the wall of the component, wherein said deposition includes shaping the at least one layer in accordance with a predetermined shape to form the flow director that extends outwards from the wall of the component and through hot gas flow path to direct the coolant flowing from the film-cooling hole toward the hot surface of the wall, *wherein the flow director does not extend over the exit site*..

Applicants thus submit that independent claims 1, and 17 recite, in generally similar language, forming the flow director that extends outwards from the wall of the component and through hot gas flow path to direct the coolant flowing from the film-cooling hole

toward the hot surface of the wall, wherein the flow director does not extend over the exit site. *See* Application, paragraphs [0027], [0033] and Fig. 3.

The Examiner argued that Bunker discloses a method of forming a flow director (by forming a slot over the holes) on a component comprising a wall by depositing at least one layer on the wall of the component, wherein said deposition includes shaping the layers in accordance with the predetermined shape of the flow director and therefore forming the flow director that extends radially outwards from the initial wall of the component and into a hot gas flow path . The Examiner cited passages at col. 2, lines 20-24 and lines 50-60 and Fig. 3in support of the rejection.

Applicants respectfully submit that the flow director (slot) of Bunker is formed at the exit site. The present invention teaches a flow director that is situated on the hot surface of the wall and *does not extend over the exit site*. The flow director may be formed in a variety of shapes such as rounded, trapezoidal and traingular. *See* Application, paragraph [0033]; Figs 3-7 and 17.

Bunker does not teach such an arrangement. The passages relied upon by the Examiner have been carefully reviewed and it is respectfully submitted that the passages do not relate to a flow director that does not extend over the exit site. Rather, Bunker discloses the flow director (slot) being formed at the exit site. Further, the position of the slot can be expressed in relation to a first surface over which is flowable a first fluid and an opposite seecond surface, spaced from the first surface along a transverse axis, over which is flowable a second fluid. See, Bunker, col. 6, limes 1-15. Clearly, Bunker does not teach the flow director extending outwards from the surface *and not extending over the exit site*.

Applicants respectfully submit that a *prima facie* case of anticipation cannot be supported by Bunker against claims 1 and 17. Therefore, it is submitted that independent

claims1 and 17 and their dependent claims are allowable and respectfully request the Examiner to reconsider rejection of the claim.

Rejections Under 35 U.S.C. § 103

The Office Action summarizes claims 6-9, 21 and 22 as rejected under 35 U.S.C. §103(a) as being unpatentable over Bunker in view of Sabol et al. (U.S. Patent No. 6,060,174).

Claims 6-9, 21 and 22 depend from independent claims 1 and 17, respectively. Applicants respectfully submit that insomuch as independent claims 1 and 17 are allowable, these claims are allowable at least by virtue of their dependence from an allowable base claim.

New Claims 27-28

Claim 27 is further directed to the flow director being rounded, or polygonal, or triangular, or combinations thereof. Claim 28 includes the recitations regarding the flow director being formed on a passage wall of the film-cooling hole and configured to spread the coolant flowing from the film-cooling hole and out of the exit site laterally. The recitations of these claims are fully supported in the specification. Applicants submit that claims 27-28 depend directly or indirectly from allowable claim 1 and are therefore considered to be allowable at least by virtue of their dependency from an allowable base claim.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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/Patrick K. Patnode/

Patrick K. Patnode
Reg. No. 40,121
General Electric Company
Building K1, Room 3A59
Schenectady, New York 12301
Telephone: (518) 387-5286